

REMARKS

Reconsideration of the application in view of the above amendments and the following remarks is requested. Claims 8-15 are in this application. Claims 8, 13, and 14 have been amended. Claims 1-6 have been cancelled.

The Examiner rejected claims 1-4 and 8-14 under 35 U.S.C. §102(e) as being anticipated by Oh (U.S. Patent No. 5,986,863). The Examiner also rejected claims 8 and 15 under 35 U.S.C. §102(b) as being anticipated by Leach (U.S. Patent No. 5,640,299). The Examiner additionally rejected claims 5 and 6 under 35 U.S.C. §103(a) as being unpatentable over Oh. As noted above, claims 1-6 have been cancelled. For the reasons set forth below, applicant respectfully traverses these rejections as applied to claims 8-15.

Claim 8 recites, in part,

“a first conductive structure formed over and contacting the first and second contact regions; [and]

“a second trigger region . . . the second trigger region not contacting the first conductive structure.” [Brackets added.]

In rejecting the claims, the Examiner pointed to p-type region 32 shown in FIG. 4 of Oh as constituting the first contact region of claim 8, and n-type region 34 shown in FIG. 4 of Oh as constituting the second contact region of claim 8.

The Oh reference, however, fails to teach or suggest a first conductive structure as required by amended claim 8. As shown in FIG. 4 of Oh, there is no conductive structure formed over contact regions 32 and 34 that also contacts both regions 32 and 34. As a result, amended claim 8 is not anticipated by Oh. In addition, since claims 9-14 directly or indirectly depend from amended claim 8, these claims are not anticipated by Oh for the same reasons as claim 8.

(In the previous rejection of claim 8, the Examiner appears to argue that the term “node” can be read to be the pn junction between p+ region 32 and n-well 30. Applicant disagrees with this interpretation of the term node. As generally used in the art, the term node refers to a point that two devices have in common (such as a point between a resistor

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AMENDMENT IN RESPONSE TO  
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and a transistor), not a point that two elements of a device have in common (such as the junction between the p region and the n region of a transistor). However, solely to further prosecution, applicant has amended claim 8 to delete reference to the nodes, and add the limitations of the first and second conductive structures.)

In rejecting claims 8 and 15 over Leach, the Examiner pointed to p+ region 149 shown in FIG. 18 as constituting the first contact region of the claims, and n+ region 147 as constituting the second contact region of the claims. In addition, the Examiner pointed to n+ region 151 shown in FIG. 18 of Leach as constituting the first trigger region of the claims, and n+ region 145 as constituting the second trigger region of the claims.

The Leach reference, however, fails to teach or suggest that the second trigger region does not contact the first conductive structure as required by the claims. As shown in FIG. 18 of Leach, the second trigger region 145 contacts metal line M (which can be read to be the first conductive structure) which, in turn, contacts the first and second contact regions 149 and 147, respectively.

Thus, the Leach reference teaches that second trigger region 145 does contact the first conductive structure. As a result, amended claim 8 is not anticipated by the Leach reference. In addition, since claim 15 depends from amended claim 8, claim 15 is not anticipated for the same reasons as claim 8.

Thus, for the foregoing reasons, it is submitted that all of the claims are in a condition for allowance. Therefore, the Examiner's early re-examination and reconsideration are respectively requested.

Respectfully submitted,

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APPENDIX

Please cancel claims 1-6.

Please amend the claims as follows:

8. (Amended) A device formed in a semiconductor material of a first conductivity type, the device comprising:

a first well of a second conductivity type formed in the semiconductor material, the first well having a dopant concentration;

a first contact region of the first conductivity type formed in the first well [, the first contact region being electrically connected to a first node] ;

a second contact region of the second conductivity type formed in the first well [, the second contact region being electrically connected to the first node] ;

a first trigger region of the second conductivity type formed in the first well, the first trigger region being spaced apart from the first and second contact regions;

a first conductive structure formed over and contacting the first and second contact regions;

a second well of the second conductivity type formed in the semiconductor material, the second well being spaced apart from the first well by a gap and having a dopant concentration;

a third contact region of the first conductivity type formed in the second well [, the third contact region being electrically connected to a second node] ;

a fourth contact region of the second conductivity type formed in the second well [, the fourth contact region being electrically connected to the second node; and] ;

a second trigger region of the second conductivity type formed in the second well, the second trigger region being spaced apart from the third and fourth contact regions, the second trigger region not contacting the first conductive structure; and

a second conductive structure formed over and contacting the third and fourth contact regions, the second conductive structure not contacting the first trigger region.

13. (Amended) The device of claim 8 wherein during a first ESD event, a first potential on the first [node] conductive structure is greater than a second potential on the second [node] conductive structure.

14. (Amended) The device of claim 13 wherein during a second ESD event, a third potential on the second [node] conductive structure is greater than a fourth potential on the first [node] conductive structure.

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